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**From:** Leithead, Cheyenne <Cheyenne.Leithead@WestonSolutions.com>  
**Sent:** Tuesday, September 19, 2017 11:05 AM  
**To:** Mason, Steve  
**Subject:** Updated Chronology  
**Attachments:** Hurricane Harvey Chronology.xlsx

Steve,

Please view the attached Chronology sheet and let me know if you have any questions.

Thank you,

***Cheyenne Leithead***

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Region 6: Hurricane Harvey Chronology	
Date: August 17, 2017	Event: Hurricane Harvey
For complete list of MAs / IAGs / Action Request Forms, see additional file	
Thur, Aug 17	Tropical Storm Harvey is named
Sat, Aug 19	Harvey is downgraded to a tropical depression; winds at 35 mph
	Harvey is downgraded to a tropical wave
Wed, Aug 23	Harvey regenerated into tropical depression (535 miles southeast of Port O'Connor, TX); 35 mph winds
Thur, Aug 24	Harvey becomes a hurricane with max. sustained winds of 85 mph (325 miles southeast of Port O'Connor)
	By midnight, Harvey is a category 2 hurricane (220 miles from Port O'Connor); winds at 100 mph
Fri, Aug 25	
MA: 01-00	Activate EPA to Texas EOC and the RRCC to support FEMA response operations (\$15,000)
	Harvey is upgraded to a category 3 hurricane; winds of 120 mph; 75 miles southeast of Corpus Christi
	Harvey is a Category 4 storm; 130 mph winds and is 45 miles from land
	Harvey makes landfall as a Category 4 hurricane; eye of storm comes ashore between Port Aransas and Port O'Connor
Sat, Aug 26	
MA: 01-00	Deploy EPA to various locations, including but not limited to Texas EOC and the Denton RRCC to support response operations (\$20,000)
	Harvey is centered ~15 miles inland; Downgraded to a Category 3; winds of 115 mph
	Harvey is downgraded to a Category 2 hurricane
	Harvey is downgraded to a Category 1 storm; 90 mph winds; Forecasters warn of potentially catastrophic flooding in the coming days
Sun, Aug 27	Harvey stationed himself over the Houston-area; extreme flooding and over 50 in. of rain in some areas
	Families are rescued from their homes due to rapidly rising waters
Mon, Aug 28	
MA: 02-00	Activate EPA to NRCC to support FEMA response operations (\$10,000)
MA: 03-00	Requested ESF-10 assistance to the State of Texas in support of assessment and response operations to actual or threatened hazardous materials and oil releases/discharge (\$8,592,000)
Tue, Aug 29	More neighborhoods are flooded after the Addicks Reservoir is open due to threats of it breaking from large amounts of water
	Fort Bend and Brazoria county under mandatory evacuation as the Brazos river due to severe threats and flooding
	Alcoa/Lavaca Bay; Jones Road GW Plume; North Cavalcade Street; Sikes Disposal Pit; Sol Lynn; South Cavalcade Street; D.L. Mud; Gulf Coast Vacuum Services; Mallard Bay landing Bulk Plant; PAB Oil & Chemical Service NPL
Wed, Aug 30	
MA: 03-01	Amendment #1: Amend to change projected end date to 9/30/2017 and OFA Action Officer to Steve Mason. No change in funding (\$8,592,000)
	Water begins to recede in Houston, TX and clean up efforts began
	Brine Service; Crystal Chemical Co.; Falcon Refinery; Star Lake Canal;
Fri, Sept 1	
MA: 02-01	Amendment #1: Extend end to 9/11/2017. Increase funding by \$40,000 (cumulative \$50,000)
	Four No Action Assurance (NAA) letters were signed by EPA to help address fuel shortages
	Phase 1 - 41 site inspections completed
	Brio Refining; Conroe Creosoting Company; Dixie Oil Processors; Harris (Farley St.); Hart Creosoting; Jasper Creosoting; Many Diversified Interests; Palmer Barge Line; State Marine of Port Arthur; Tex-Tin Corp; United Creosote
Sat, Sept 2	FEMA approved the State of Texas' request to amend the cost waiver for response effort funding
Personnel: 104	FEMA's JFO opened (R6 has two liaison stationed at JFO in Austin, TX
Expended Funds: \$1,759,127.00	Arkema: 3 of the 9 trailers self-ignited
	TCEQ sent 4 teams to survey Beaumont area (GW plant remains off-line due to flooding conditions; SWP producing 20 MGD
	State of Louisiana received an Emergency Declaration (FEMA-3382-EM)
	Corpus Christi Discharge Assessment Team 1 observed an ongoing release of natural gas at the S. Mustang Separation Facility
Sun, Sept 3	EPA's aerial reconnaissance aircraft continues to fly over the Arkema facility ~every 10 to 15 min
Personnel: 145	Responsible party in consultation with UC decided to manually ignite the remaining peroxide trailers
Expended Funds: \$2,537,744.00	1.5 evacuation radius remains in effect
	PIO mobilized to the Houston Mayor's Office to began operating out of the Houston Emergency Center
	Geneva Industries/Fuhrmann Energy; Sheridan Disposal; Ruston Foundry NPL Sites Completed
Mon, Sept 4	
MA: 03-02	Amendment #2: Amend to change Federal cost share to 100% per FRM #4 of the Presidential Declaration (\$8,592,000)
Personnel: 163	Staging area secured at Beaumont Branch
Expended Funds: \$2,692,902.00	Field response activities continue at CTX and HTX branches; focus changes from assessment to recovery
	Remaining peroxide trailers at the Arkema facility were manually ignited in a controlled method
	Multiple Superfund Phase 2 Site inspections are planned; One Superfund Phase 2 inspection completed
	Acting Regional Administrator and advisors to the Administrator met with Houston Mayor/local and state officials
	Acting Regional Administrator and advisors will be touring NPL sites with reporters from national media outlets; attending Congressional briefing later today
	EPA issued joint statement with TCEQ about controlled burn at Arkema facility; Crosby Volunteer FD/Harris County Fire Marshall's Officer performed burn
	EPA's TAGA bus along with EPA personnel arrived in Houston
	EPA Team began mobile air monitoring in the Manchester Community (Houston Branch); 6 locations monitored
	Pre-sampling of staging areas completed in CTX branch
	Total of 73 orphan containers have been collected to date
	President approved the addition of 7 more counties (Austin, Bastrop, DeWitt, Gonzales, Karnes, Lavaca, and Lee) to Disaster Declaration; total # of counties on the Presidential Disaster Declaration: 39
	French LTD; Highlands Acid Pit; Malone Services Company; Patrick Bayou; Petro-Chemicals Systems;
Tues, Sept 5	
MA: 01-01	Amendment #1: Amend 4332DR-TX-EPA-01 for additional funds for additional personnel at State EOC/JFO at request of FEMA IMT and extension of coverage from original MA (\$275,000)
Personnel: 157	EPA Liaison embedded with Houston Mayor's Office; toured 3 Superfund sites and briefed Senator John Cornyn's office
Expended Funds: \$3,496,641.00	EPA Ronnie Crossland, Senior Liaison will join TCEQ Chairman Shaw for briefing with Gov. Abbott; RA Coleman will join by telephone
	Acting Regional Admin., Chairman of TCEQ and Special Advisors will brief Mayor today.
	EPA demob. From Arkema site
	Acting Regional Admin. To visit the HTX command post today
	EPA TAGA to conduct air mon. in southeast Houston around the Valero Refinery
	EPA to host call with Environ. Justice contacts in TX and LA.
	TCEQ operations were turned back over to the TCEQ regional office
	Total of 86 containers collected to date
	EPA providing support to TCEQ for DW/WW system assessments
	Houston Magellan facility cleanup completed (product outside of contaminant)
	10,000 gallons of petroleum were removed at Signet Enterprise vessel located at Aransas Pass (addressed by Responsible Party with EPA oversight); 45,000 gallons of petroleum removed overall
Wed, Sept 6	TX Gov. Abbott plans to travel to CTX, HTX, Victoria, Fort Bend County and Beaumont Tues-Sat; EPA Sam Coleman has been invited and will accompany the Gov. on Thurs and Fri.; Kell Kelly will accompany Gov. on Sat.
Personnel: 189	EPA completed tours areas impacted by storm; Kell Kelly will join JFO in Austin on Thursday as EPA's Senior Fed. Official
Expended Funds: \$3,782,429.86	EPA has begun deploying community liaisons to serve in EOCs
	EPA coordinating with USCG on a 2500-gallon fuel oil spill at Houston Magellan facility (product outside of the cont. area is being collected)
	EPA assisted TCEQ by conducting site inspections at 2 State Superfund Sites
	EPA Remedial Manager onsite and overseeing at San Jacinto Waste Pits Superfund Site
	EPA issued statement on the assessment of Valero Houston Refinery (confirmed that a tank at facility did have a leak which occurred on 08/26/2017 from Harvey storm and flooding)
	Total of 91 containers collected to date
	EPA has granted all open fuel waivers requested to date
	43 Federal Superfund Sites in the affected area have been assessed; 41 sites have been cleared
	San Jacinto Pits and US Oil Recovery are the 2 remaining NPL sites that require additional follow up
Thurs, Sept 7	Gov. Abbot will hold a press conference at 10 am this morning. EPA Acting RA Coleman will participate
Personnel: 197	EPA completed 50 DW and WW systems on-site assessments
Expended Funds: \$5,210,967.68	EPA recovered 5 hurricane-damaged containers in the CTX area; 96 containers collected to date
	In partnership with TCEQ and USCG, EPA has completed post-hurricane environmental damage assessments in 4 counties (Liberty, Austin, Waller, and Chambers)
	19 community liaisons have been deployed to HTX
	EPA to begin post-hurricane conf. sampling at 34 NPL Superfund sites in TX today
	Houston Mayor announced city dept. are resuming normal business hours and operations
	EPA Dive Team has been deployed to oversee PRP act. At the San Jacinto Superfund Site
	Aerial insecticide spraying began over Refugio and Bee counties
Fri, Sept 8	Gov. Abbot announced John Sharp as Commissioner for the Commission to Rebuild Texas; asked all State and Federal Agencies to work together to expedite cleanup and cut red
Personnel: 198	TCEQ and EPA have completed 4,852 DW facilities and 2,908 WW facilities in the impacted areas.
Expended Funds: \$5,210,967.68	TCEQ will expand to 24-hour operations; R6 staff added to SOC
	EPA to use insecticides containing "Naled" to spray for mosquitos

